



Investigation of Seatbelt use Frequency of Healthcare Providers in Ankara

Ankara'da Sağlık Çalışanlarının Emniyet Kemerinin Kullanım Sıklığının Araştırılması

Emniyet Kemerinin Kullanımı / Seatbelt Usage

Dede Serdar, Kavalci Cemil, Arslan Engin Deniz, Yılmaz Fevzi, Uyanık Bunyamin, Arslan Ozgür,
Numune Training and Research Hospital, Ankara, Turkey

Özet

Amaç: Trafik kazaları, gelişmekte olan diğer ülkeler gibi Türkiye için de önemli bir halk sağlığı sorunudur ve her yıl trafik kazaları sonucu binlerce insan zarar görmektedir. Araç kazalarında hayat kurtaran en önemli güvenlik önlemlerinden olan emniyet kemeri kullanımı ülkemizde halen istenen düzeyde değildir. Bu çalışmada, hastanemiz sağlık çalışanlarının emniyet kemeri kullanım konusundaki duyarlılıkları araştırılmıştır. **Gereç ve Yöntem:** Çalışma 1-28 Şubat 2011 tarihleri arasında yapıldı. Çalışma etik kuruldan onay alındıktan sonra yapılmıştır. Hastane otopark girişinde gözlemsel olarak, emniyet kemeri kullanımı araştırılmıştır. Çalışanların kişisel bilgileri kendilerinden veya hastanenin çalışma sisteminden elde edilmiştir. Çalışanların isimleri, emniyet kemeri kullanım durumları, cinsiyet, yaş, medeni durumu, çalıştığı birim, eğitim durumu ve meslek parametreleri oluşturulan forma kaydedilmiştir. Formlardan elde edilen veriler SPSS 16 istatistik programı ile analiz edilmiştir. Tanımlayıcı istatistikler frekans ve yüzde ile verilmiştir. Gruplar arasında fark bulunup bulunmadığı yerine göre Ki-kare yada Fisher testleri kullanılarak karşılaştırıldı. **Bulgular:** Branşa göre istatistiksel olarak anlamlı fark bulunamamıştır ($p>0,05$). Çalışma sonucunda sağlık çalışanlarının emniyet kemeri kullanım oranı önceki çalışmalara oranla yüksek bulunmuştur. **Tartışma:** Eğitim ve sosyo-kültürel düzey yükseldikçe emniyet kemeri kullanma oranı artmaktadır

Anahtar Kelimeler

Trafik Kazası; Emniyet Kemerinin; Sağlık Çalışanları

Abstract

Aim: In Turkey, as in so many other developing countries, traffic accidents appear as a major public health problem that causes damage to thousands of people every year. Use of seat belt which is one of the most important life-saving safety measures in car accidents has not yet reached the desired level. In this study, the sensibilities of hospital health care providers with respect to seat belt use were investigated. **Material and Method:** After approved to local ethics committee we conducted this study in Hospital. Health care providers were observed at the parking entrance in order to see whether they put on seat belt or not while driving. The personal data of the subjects were obtained either from themselves or through the hospital employee records. Their names, gender, age, marital status, work unit, education level, seat belt usage status, and professional parameters were recorded. The Chi-square test or Fisher's exact test, when appropriate, was used to compare these proportions in different groups. **Results:** There was statistically significant difference accordingly to professional groups ($p<0.05$). In conclusion, we found that health care providers have higher seat belt use rate rather previous study. **Discussion:** The use of seat belt increases in direct proportion to the education level and socio-economic status.

Keywords

Traffic Accidents; Seat Belt; Health Care Providers

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Corresponding Author: Kavalci Cemil, Numune Training and Research Hospital, Emergency department, Ankara, Turkey.

GSM: +905055762819 E-Mail: cemkavalci@yahoo.com

Introduction

In Turkey, as in so many other developing countries, traffic accidents appear as a major public health problem that causes damage to thousands of people every year. In Turkey 50 traffic accidents occur per hour which result in several casualties, 1 dead and 12 injured in average [1]. Today traffic accidents claim as many casualties as wars and earth quakes, and the tangible damages engendered by these accidents rise every year. Despite the fact that several studies have proved the life-saving quality of seatbelt in traffic accidents and that there are many laws providing seatbelt use as mandatory seatbelt use is still very limited in Turkey [2].

Behaviors are acts that change depending on many factors such as the state the individual is in, the perception of that state by the individual and the way the individual has previously learned to react in that state. Behaviors show consistency although the reason behind this consistency is not always easy to identify from outside. For example the behavior of a driver who does not put on seatbelt (SB) in spite of his knowledge of traffic rules can be explained through consistency. Seatbelt is a passive safety measure that prevents the individuals in the car to hurtle and bump into the front or sides of the car or to be thrown through the windshield in the event of all those types of traffic accidents. The reason that leads the driver not to put on SB can be related to a previously learned behavior that is against traffic safety. It can also be related to the driver's failure to learn a behavior that is required by traffic safety.

In this study we aimed to the sensibilities of hospital health care providers with respect to seat belt use were investigated

Material and Method

After the permission for the research was obtained from the hospital ethics committee this study was conducted in Hospital. Health care providers were observed at the parking entrance in order to see whether they put on seatbelt or not while driving. The personal data of the subjects were obtained either from themselves or through the hospital employee records. Their names, seatbelt usage status, gender, age, they are married or unmarried, work unit, education level and professional parameters were recorded. The data were analyzed by using SPSS 16.00 statistics program. Descriptive statistics were given %. The Chi-square test or Fisher's exact test, when appropriate, was used to compare to these proportions in different groups. $p < 0.05$ value was accepted in statistical significance.

Results

This study consisted of 218 health care providers. 63.3 % were seatbelt wearers while 36.7 % did not wear seatbelt. Health care providers observed in this study were also classified as to whether they were drivers or passengers. 84.9% were drivers and 15.1 % were passengers. No statistically significant difference was detected between drivers and passengers ($p > 0.05$).

29.4 % of the personnel included in this study were female and 70.6 % were male. Wearing seatbelts status according to gender shown in the table 1. There was no statistically significant difference according to gender ($p > 0.05$).

65.3 % of the personnel were wearing seatbelts in 20-30 ages (table 1). There was no statistically significant difference ac-

ording to age groups ($p > 0.05$).

62.4 % of the personnel included in this study were married and 37.6 % of the subjects were unmarried. Wearing seatbelts status according to marital status shown in the table 1. There was statistically significant difference according to marital status ($p < 0.05$).

92.2% of the personnel were university graduates. Wearing seatbelts status according to educational status shown in the table. There was statistically significant difference according to educational levels ($p < 0.05$). The rate of seatbelt wearing was significantly higher among university graduates (table 1).

The personnel were also classified in accordance with their profession. 75.2 % of personnel were doctors. 21.1 % were Assistant Health Personnel and 3,7% were support personnel. (table 2). There was statistically significant difference accordingly to professional groups ($p < 0.05$). The rate of seatbelt wearing among doctors is significantly higher.

The health care providers included in this study were classified on the basis of their work unit within the hospital. Distribution of personnel according to work unit within the hospital shown on the table 2. There was statistically significant difference according to work unit within the hospital ($p < 0.05$). The rate of seatbelt wearing among health care providers who were classified of surgery was higher than the other groups.

Table 1. Wearing seatbelts status according to demographic proportions

		n	Seatbelt wearing	Not wearing	χ^2	p
Seatbelt user	drivers	185	64.9	35.1	33.4	0.32
	passengers	33	54.5	45.5		
Gender	Female	64	62.5	37.5	6.70	0.87
	male	154	63.6	36.4		
Age groups	20-30	49	65.3	34.7	6.70	0.87
	31-40	105	59.0	41.0		
	41-50	39	66.7	33.3		
	51-60	25	72.0	28.0		
Marital status	Married	136	63.2	36.8	41.9	0.02
	Unmarried	82	63.4	36.6		
Educational level	Elementary school	1	-	100	6.79	0.03
	High school	16	37.5	62.5		
	University	201	65.7	34.3		

Table 2. Distribution of personnel accordingly to professional groups

		n	Seatbelt Wearing	Not wearing	χ^2	p
Profession	Doctors	164	70.1	29.9	14.5	0.001
	Asistant Health Personnel	46	45.7	54.3		
	Other	8	25.0	75.0		
Working unit	Emergency	58	55.2	44.8	12.8	0.01
	Surgery	94	71.3	28.7		
	Internal medicine	56	64.3	35.7		
	Labrotory	5	-	100		
	Management	5	60.0	40.0		

Discussion

It is indisputable that one of the most important problems of our country is traffic accidents that cause many deaths and injuries as well as considerable tangible losses every year. Puvanachandra et al reported that dramatic rise in traffic accidents and injury rates since 1999 [3]. In 1.104.388 traffic accidents that occurred during 2010 in Turkey whereas 620.789 in 2005. 4.045 individuals died and 211.446 individuals injured. These numbers do not include the number of road traffic victims who died at the hospital because there is no statistics for post-accident deaths in Turkey. Considering that many healthy and young people either die or sustain serious injuries that result in life time disabilities in traffic accidents, it is easy to infer that those accidents cause incalculable material and spiritual damage to the future of the country [2].

In response to the increasing number of traffic accidents many preventive measures aiming to forestall the occurrence of accidents such as Anti-lock Brake System (ABS) and electrical stability programmes as well as some passive safety measures aiming to prevent or decrease the number of injuries inside the car after the accident such as seatbelt and air bag have been devised and developed. The studies that focus on the types of traffic accidents maintain that the most common type of traffic accident is frontal collisions followed by side impacts, rear-end impacts and roll-over respectively [4].

Seatbelt is the sole passive safety measure that has been proven to reduce the risk of death and serious injury in traffic accidents. Whereas traffic safety has been rapidly ameliorating in the countries like the United States where seatbelt wearing rate is remarkably high (81 % in 2006), the number of deaths and injuries caused by traffic accidents have been soaring in developing countries like Turkey where seatbelt use has been a statutory obligation since 1982 yet the seatbelt wearing rate is strikingly low (4.7-37.5 %) [2].

A study that was carried out at the 27 busiest intersections in Ankara revealed that seatbelt usage rate ranges from 4.7 % to 37.5 % depending on the type of vehicle [5]. The findings of our own study can be compared with the findings of the previous studies conducted in the city centre since our hospital is located in the city centre too. In this sense the finding of our study that establishes the rate of seatbelt use at 63.3 % is higher than the findings of other studies by a decisive margin.

Demircan et al [2] demonstrated individuals younger than 40, taking risk in traffic and concludes that seatbelt use rate is lower among youngs. Ma et al [6] reported that seatbelt use rate is higher among patients younger than 30 years and older than 51 years old. In our study, no statistically significant difference was detected between different age groups

Ma et al [6] reported that gender difference is not related with seatbelt use whereas Demircan et al [2] reported male gender is related with lower rates of seatbelt use. Likewise there was no statistically significant difference between females and males as well as married and single subjects in terms of seatbelt use. There have been no other statistical findings on this subject in Turkey that we can compare our findings with. This result should be effected by alarming technologies activated with not using seatbelts in last term vehicles.

Our study found that seatbelt use rate among health care pro-

viders working in the surgery units is higher than the other units. We are in the opinion that this higher rate of seatbelt use can be explained by the fact that those health care providers come across more trauma cases in their daily work routine than the health care providers working in other units. However in contrast to our finding, Demircan et al [2] demonstrated lower rates of seatbelt use in lecturers working in the surgical unit of the hospital.

Demircan et al [2] reported that among lecturers who did not use seatbelt regularly had high academic degrees whereas Ma et al [6] demonstrated negative correlation between seatbelt use and education levels. However our study concluded that seatbelt use rate increases in direct proportion to educational level of the subjects. In relation to this finding our study also revealed that in comparison with the other health care providers the rate of seatbelt use among doctors appears higher. We conclude that it is reasonable by increase in level of education results in increased awareness about seatbelt use.

Ma et al [6] reported seatbelt uses in passengers were lower than drivers. In our study, no statistically significant difference was found between drivers and passengers in terms of seatbelt use. These results should be effected by both drivers and passengers who do not use seatbelt punished with the legal arrangements.

In Turkey various campaigns that have been carried out for years both in media and educational sector with a view to encourage seatbelt use do not seem to bring about desired results. One of the reasons in this failure is believed to be the insufficient support of the profession of medicine for these campaigns. In conclusion, we found that health care providers have higher seat belt use rate rather previous study. In other words, the use of seat belt increases in direct proportion to the education level and socio-economic status.

Competing interests

The authors declare that they have no competing interests.

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